Maine School IPM Program
207-287-2731

Maine School IPM News

MAINE DEPARTMENT OF AGRICULTURE, FOOD, & RURAL RESOURCES

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INSIDE THIS ISSUE:

What to Look for When Pests are Present

By: Krystal Waltman, Auburn University

Insects (and other pests) are constantly around us. Their small size and tendency to take shelter in enclose spaces can cause us to be unaware of their presence. We have the mindset that if we don't actually see the pest, it isn't around. Unfortunately, that's not always he case. By the time many pests are detected, they have already caused some kind of damage. Fortunately, although we may not see the pest, they usually leave signs of their presence. If you know what to look for, you will be more likely to diagnose the pest type and prevent them from building up large populations and causing damage.

Insect Indicators

When dealing with insect pests, there are a number of very obvious signs of presence, and some not so obvious signs. Some obvious signs of pest presence include: wasp or bee nests, fire ant mounds, and predators like hunting spiders. Less obvious signs include: beetle elytra, sawdust, holes, mud tubes, and webbing.

Beetle Elytra –The wings of beetles are different from other insects. They are harder and more protective and are called elytra. When beetle pests are around, you may see pieces of elytra around from beetles that have died. In pest species, these are usually, small, brown, half ovals, and look like part of a nut.

Sawdust – Many insects feed on paper or wood and leave sawdust or a sawdust- like substance near their shelter. These include termites and carpenter ants.

Holes – Certain insects bore holes into structures. Carpenter bees, termites and some beetles for instance, bore characteristic holes in wood.

Mud Tubes – When termites are present in a structure, they create tunnels made out of mud that run along walls.

Webbing – Spider webbing in room and window corners in structures is quite common. Looking at the insects in those webs can indicate if you have a certain species inhabiting that place. You may have an infestation of some kind if you see many of the same kind of insect in webbing around the house.

Rodent Indicators

The presence of rodent pests in a structure is obvious is if an animal or its dropping are found. Rodents like mice and rats also cause characteristic damage such as chewing through bags of food which will alert humans to their presence. However, they also create less obvious signs that alert us to their presence. These include: gnawing, burrows, grease marks, paths, sounds and smells.

Gnawing – Rodent gnawing damage is quite common. They are capable of gnawing or chewing through packages of food quite easily and are also capable of chewing through wiring, wooden objects and a number of other materials. Sometimes they even leave teeth marks on places they have gnawed.

Burrows – Some rodents will create burrows along walls, in earth banks or under rubbish or concrete slabs. These will look like small to medium sized holes and they may be in use if you see fresh tracks or freshly dug dirt around the entrance to the hole.

Pathways – Rodents have a limited range that they travel away from their homes. When they do leave their homes, they tend to travel the same pathways. They can make wear marks on carpets and mark visible paths on the ground outside.

Grease marks – Hand in hand with making trails, rodents also tend to run along walls. This is where you should look for trails but also on the walls themselves, rodents will leave grease or dirt marks from where their fur has rubbed against the surface.

Sounds – Even if you don't see rodents, you may hear them. Listen for squeaks, fighting noises, and sounds of running, climbing, or chewing in the walls.

Smells – Smells are probably the hardest non-visible sign to detect but mice and rats can have distinct odors. The more familiar you are with these rodents, the easier it is to detect. Any unusual odors in the structure should be investigated to determine if it is being caused by a pest.

Fall Brain Buster

You were on a walk and found this. To touch or not to touch, that is the question!

Answer: Don't touch! It's a browntail moth which can cause severe allergic reactions. Read more at http://www.maine.gov/doc/mfs/btm08.htm.

Read All About It!

Interested in learning more about the School IPM process? There is a great new book out that outlines what School IPM is all about. "A Worm in the Teacher's Apple: Protecting America's School Children from Pests and Pesticides" by Dr. Marc Lame is a must read for anyone interested in why School IPM should be a priority for the safety of the children.

Try It For Yourself!

"YOU can be a pest private eye too!"

Welcome to Pest Private Eye's Site!

Hello and welcome to the Pest Private Eye website, we're glad you stopped by! I'm Penny Poe, Pest Private Eye's trusty assistant and junior pest detective. So you want to learn more about pests and how to control them with integrated pest management? You've come to the right place! Feel free to navigate our site to learn more about this effective approach and how YOU can be a pest private eye too!

http://pestgame.unl.edu/

Pest of the Month - Rodents

The **house mouse** is the most common commensal rodent invading houses. It is primarily nocturnal and secretive. The presence of mice is usually indicated by sightings, damage from gnawing into food containers, or presence of droppings. In the wild, house mice feed primarily on seeds. In the home and school, they prefer grain products, bird seed, and dry pet food. Peanut butter or gum drops stuck to the trigger, rolled oats or bird seed sprinkled on the trap are good baits. House mice are inquisitive and actively explore anything new. They tend to nibble on many small meals a night. House mice are good climbers. They have a small home range and usually stay within 10 to 30 feet of their nest. Therefore traps for mice should be set 6 to 10 feet apart. Nests are usually in structural voids, in undisturbed stored products or debris, or in burrows outdoors. When food is abundant, nesting material, such as a cotton ball, tied to the trigger can act as an effective lure. Mice and rats are very nervous about moving in the open. The more cover they have, the more comfortable they are. They would prefer running behind an object or along the baseboard of a wall than to run across an open space.

The **roof rat** or black rat is the most common rat encountered in buildings. These rats are excellent climbers and often nest in attics, wall voids, hollow trees, and in palm thatch. They prefer to travel off the ground and enter houses from nearby trees or along power lines. Roof rats prefer fruit, (they are sometimes called citrus rats), but will eat any type of human, pet, or livestock food. Peanut butter, pieces of fruit or nut meats are the best baits. Rats are usually fearful of new items in their environment and avoid them for several days. This means that traps should be left in place for at least one week before they are moved to a new location. The presence of roof rats can be determined by gnawing damage, the presence of droppings, sightings, sounds of scratching, squeaking, or gnawing in walls or ceilings, and characteristic dark, greasy rub marks along frequented paths along walls and on rafters. Rats have large home ranges and may travel over 50 yards to reach food or water. Concentrating traps along rat runways or favorite routes of travel is most effective.

Rats occurring in sewers are generally **Norway rats**. These rats are strong burrowers, but can also climb well. They are excellent swimmers and can swim under water for up to 30 seconds and can enter houses by coming up toilet pipes. These rats usually dig burrows along building foundations and under debris piles. They have a strong preference for meat and fish, but will do well on any type of human or pet food.

Raw or cooked meat and fish, especially sardines, are excellent baits, but peanut butter also works well. Like the roof rat, the Norway rat is cautious of new objects and has a very large home range, over 50 yards in radius.

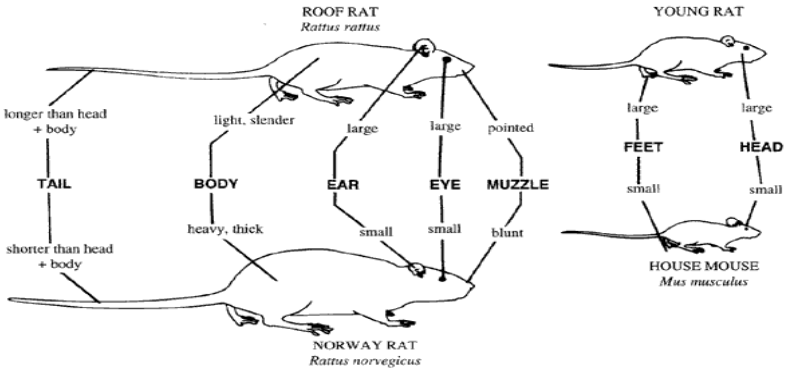
The Norway rat is very aggressive and will drive roof rats out of an area. However, both species of rats can be found in the same building, with roof rats in the attic and Norway rats in the basement.

Proper sanitation will do a great deal to control rodent pests. All animals have three requirements for life; food, water, and cover. Removal of any one will force an animal to leave. The removal of debris such as piles of waste lumber or trash, used feed sacks, and abandoned large appliances will substantially reduce the harborages for rodent pests. Stacked firewood stored for long periods provides good harborage for all three commensal rodents. Storage of pet food and seeds, such as wild bird seed, in rodent proof containers of glass or metal, will eliminate these food sources. Collect and remove fallen fruit from backyard trees and orchards. Keeping lids on trash cans and closing dumpsters at night will also make an area less attractive to rats and mice. The drainage holes in dumpsters should be covered with hardware cloth to keep rodents out.

This Norway rat is a strong swimmer and a good burrower.

House mice are inquisitive and actively explore anything new.

Mouse and rat traps such as this one help to minimize pest problems.



Maine Department of Agriculture, Food, and Rural Resources

28 State House Station
Augusta, ME 04333

Phone: 207-287-7616
Fax: 207-624-5065
E-mail: kathy.murray@maine.gov

We're on the Web!
http://www.thinkfirstspraylast.org/schoolipm

Maine Legislature Addresses School Turf, Playgrounds and Lawns

In 2011, state legislature passed a bill, LD 837, requiring the Maine Department of Agriculture to 1) assess compliance with current state pesticide and Integrated Pest Management regulations applicable to schools, 2) report findings and suggested improvements to the Legislature and 3) develop a set of turf 'best management practices' for Maine schools. This is aimed at protecting children's health and ensuring fiscal and environmental sustainability.

The Maine Department of Agriculture has been visiting selected school districts to review current turf and grounds care and pesticide-use practices. In addition, the Board of Pesticides Control has reviewed school inspection reports and commercial pest control service provider records to determine current pesticide use patterns and will be reporting findings to legislature by February, 2012.

What does this mean for you? Specific pest and turf best management practices will be published in 2012 and schools should be aware of these. Contact Gary Fish (287-7545) or gary.fish@maine.gov at the Maine Board of Pesticides Control or Kathy Murray (287-7616) or Kathy.Murray@maine.gov at the Maine Department of Agriculture for more information or to provide input.

When Are Lady Beetles Pests?

We normally think of lady beetles as one of the good guys. And they are, most of the time. But at least one lady beetle species has become a persistent pest in many communities. It's called the multicolored Asian lady beetle. The multicolored Asian lady beetle, known scientifically as Harmonia axyridis, hitched a ride to the U.S. from China probably sometime in the late 1980s. It was first reported as a pest in the early 1990s. Although beneficial during the summer months when it feeds voraciously on aphids, these beetles frequently enter buildings in the fall by the thousands. Once indoors, they accumulate in attics, on walls or in the corners of rooms. If crushed, they can emit a smelly juice that can stain walls and fabrics. Since their discovery, doctors have reported patients developing allergies to the feces and proteins in crushed beetles. And in case you're wondering, yes, lady beetles do bite on occasion. To date the worst infestations seem to occur in the central eastern and Great Plains states of the U.S. Buildings located on the tops of hills, especially those near farm fields or forests, where aphids are abundant, are most likely to become infested. Most of us are likely to encounter only an occasional lady beetle in a classroom or office. In such cases, no action is needed. However, when their numbers become troublesome, vacuuming is probably the best solution. HEPA filtered vacuums are recommended to avoid dispersing allergenic beetle fragments throughout the infested area. Pesticides are not generally a good idea, because masses of dead beetles can create a smelly mess.

Preventing lady beetles from entering the school can be difficult because of their ability to enter through the tiniest of cracks and crevices. Nevertheless, when possible, look for and seal any suspected entry points outdoors. Look for accumulations of these beetles on the south-facing sides of buildings in the late fall and into November and December. The multicolored Asian lady beetle is likely to be seen in low numbers in schools in early spring, when outdoor temperatures rise and the beetles get the urge to hunt. In most cases the best solution is to collect the stray beetles, carry them outdoors and release them saying,

"Ladybird, Ladybird fly away home."

Want to learn more? Visit http://www.maine.gov/agriculture/pesticides/gotpests/bugs/factsheets/lady-beetle-usda.pdf